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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/767,381	Applicant(s) MATHEW ET AL.	
	Examiner Paul Kim	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9,10 and 37-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9,10 and 37-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/2/2007</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|--|--|

DETAILED ACTION

1. This Office action is responsive to the following communication: Amendment filed on 2 March 2007.
2. Claims 1-6, 9-10, and 37-39 are pending and present for examination. Claim 1 is provided in independent form.

Response to Amendment

3. Claims 1-6, 9, 10, and 37-38 have been amended.
4. Claims 7 and 8 have been cancelled.
5. Claim 39 has been added.

Drawings

6. As per the objection to the Drawings, Applicant's amendment has been acknowledged. Accordingly, the objection has been withdrawn.

Information Disclosure Statement

7. The information disclosure statement (IDS) submitted on 2 March 2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. **Claims 1-2, 4-6, 9-10, and 37-39** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed toward "a metadirectory

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system" comprising of adapter peers and a join engine peer used for various operations, and are non-statutory because they do not encompass tangible subject matter and/or embodiments which fall within a statutory category.

The claims fail to recite a positive application of the "system for communicating data changes" such that a "useful, concrete and tangible result" would occur, but instead recite that system broadcasts data and generates queries. That is, since the claims fails to recite how the broadcasted data and generated queries to effectuate a "useful, concrete and tangible result," the claims are non-statutory. "The claimed invention as a whole must accomplish a practical application. That is, it must produce a 'useful, concrete and tangible result'" (emphasis added). See *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02. MPEP 2106.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 1, 5-10, and 39** are rejected under 35 U.S.C. 102(b) as being anticipated by Multer et al (U.S. Patent No. 7,007,041, hereinafter referred to as MULTER), filed on 2 January 2001, published on 22 November 2001, and issued on 28 February 2006

12. **As per independent claim 1**, MULTER teaches:

A system for communicating data changes comprising:

a plurality of adapter peers each associated with a respective source system {See MULTER, Figures 1-8} and each communicating data changes {See MULTER, C6:L40-43, wherein this reads over "[t]he function of the synchronizer 104 is similar to that of the transmitter and receiver combined; the synchronizer will allow difference information Δ to be both transmitted and received"; C10:L24-26, wherein this reads over "a device engine is associated with each type of device"; and C10:L45-47, wherein this reads over "[e]ach of the device engines 862, 864, 866 and 868 is configured relative to the type of device on which it resides"}, each adapter peer communicating with other adapter peers in a peer-to-peer fashion {See MULTER, Figure 1};

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a first join engine peer configured to communicate with adapter peers in the peer-to-peer fashion and process data from the adapter peers to generate data of defined data types {See MULTER, C27:L18-41, wherein this reads over "[o]nce data is extracted from a particular application, the server application object must then convert the information into the universal record format which can then be utilized by other server device engines to take content information into their own particular application," "[t]he universal record format is used by each server device engine to handle various tasks of encapsulating records in a common format," and "an application object can be designed to support any combination of application and binary information types"); and

a first plurality of communication channels for broadcasting data changes from the plurality of adapter peers and for broadcasting the data of defined data types generated by the first join engine peer, each communication channel of the first plurality of communication channels associated with a particular data type {See MULTER, C9:L30-32, wherein this reads over "the system may be used to broadcast public or private information to various device types"}.

Additionally, it would be inherent to the claimed system to have a plurality of communication channels for broadcasting changes and data from the adapter peers and the join engine peer since such communication channels are necessary to transmit data between the peers and join engine peer.

13. As per dependent claim 5, MULTER teaches:

A system as described in Claim 4 wherein the data generated by the first join engine peer relates to a third data type comprising a first data type and a second data type and wherein the data change is other first data type and wherein the second data type is supplied in response to the queries {See MULTER, C27:L18-41, wherein this reads over "[o]nce data is extracted from a particular application, the server application object must then convert the information into the universal record format which can then be utilized by other server device engines to take content information into their own particular application," "[t]he universal record format is used by each server device engine to handle various tasks of encapsulating records in a common format," and "an application object can be designed to support any combination of application and binary information types"; and C8:L51-59, wherein this reads over "Generally, the system comprises client software which provides the functions of the differencing transmitter 100, differencing receiver 102, and differencing synchronizer 104 in the form of a device engine. The device engine includes at least one component particular to the type of device on which the device engine runs, which enables extraction of information from the device and conversion of the information to difference information, and transmission of the difference information to the storage server"}.

14. As per dependent claim 6, MULTER teaches:

A system as described in claim 1 wherein the plurality of adapter peers and the first join engine peer are each software processes {See MULTER, C8:L51-59, wherein this reads over "Generally, the system comprises client software which provides the functions of the differencing transmitter 100, differencing receiver 102, and differencing synchronizer 104 in the form of a device engine. The device engine includes at least one component particular to the type of device on which the device engine runs, which enables extraction of information from the device and conversion of the information to difference information, and transmission of the difference information to the storage server"}, wherein at least two of the software processes operate on a same server system.

15. As per dependent claim 7, MULTER teaches:

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A metadirectory system as described in claim 6 wherein the software processes each operate on a separate server system {See MULTER, C10:L24-26, wherein this reads over "a device engine is associated with each type of device"; and C11:L62-64, wherein this reads over "a device engine exists for each and every device that makes up a user's personal information network of devices in the system"}.

16. As per dependent claim 8, MULTER teaches:

A metadirectory system as described in claim 6 wherein the first join engine peer is a software process {See MULTER, C27:L18-41, wherein this reads over "[o]nce data is extracted from a particular application, the server application object must then convert the information into the universal record format which can then be utilized by other server device engines to take content information into their own particular application," "[t]he universal record format is used by each server device engine to handle various tasks of encapsulating records in a common format," and "an application object can be designed to support any combination of application and binary information types"}.

17. As per dependent claim 9, MULTER teaches:

A system as described in claim 1 wherein the data of the defined data types generated by the first join engine peer comprises a consolidated view of data associated with two or more other data types {See MULTER, C12:L5-13, wherein this reads over "[t]he job of the application object is to map data from the application into a temporary or 'universal' data structure by connecting to the application via any number of standard interfaces to gain access to the applications data"; and C16:L33-38, wherein this reads over "[t]he consistent and scalable architecture of the system of the present invention for device engines is maintained by encapsulating system-dependent knowledge in a single component, i.e. the application object"}.

18. As per dependent claim 10, MULTER teaches:

A system as described in claim 1 further comprising a second join engine peer configured to communicate with adapter peers and the first join engine peer in the peer-to-peer fashion and combining data from adapter peers {See MULTER, C27:L18-41, wherein this reads over "[o]nce data is extracted from a particular application, the server application object must then convert the information into the universal record format which can then be utilized by other server device engines to take content information into their own particular application," "[t]he universal record format is used by each server device engine to handle various tasks of encapsulating records in a common format," and "an application object can be designed to support any combination of application and binary information types"} and from the first join engine peer to generate data of defined data types and wherein the second join engine peer also performs data transformations {See MULTER, C14:L33-41, wherein this reads over "[t]he device engine 860 and particularly the delta module 950 interpret data packages based on the versioning information and the mirrored data present in the application object store 920. When data is returned to the delta module 950 from the storage server 850, the delta module returns differenced data to the application object 910 for the particular application which then translates the delta information into the particular interface utilized for application 810"}.

19. As per dependent claim 39, MULTER teaches:

A system as described in Claim 1 wherein the first join engine peer also performs data transformations on data received from the adapter peers {See MULTER, C27:L18-41, wherein this reads over "[o]nce data is extracted from a particular application, the server application object must then convert the information into the universal record format which can then be utilized by other server device engines to take content information into their own particular application," "[t]he universal record format is used by each server device engine to handle various tasks of encapsulating records in a common format," and "an application object can be designed to support any combination of application and binary information types"}.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. **Claims 2-3** are rejected under 35 U.S.C. 103(a) as being unpatentable over MULTER, in view of Becker et al (U.S. Patent No. 7,117,264, hereinafter referred to as BECKER), filed on 10 January 2002, published on 10 July 2003, and issued on 3 October 2006.

22. **As per dependent claim 2**, MULTER, in combination with BECKER, discloses:

A system as described in claim 1 wherein the first join engine peer also generates queries for data of specific data types and further comprising a second plurality of communication channels for broadcasting the queries and wherein each channel of the second plurality of communication channels is associated with a particular data type {See BECKER, C2:L36-42, wherein this reads over "[a] query command from an originating peer node may be received at the current peer node and response data may be communicated directly from the current peer node to the originating peer node, in response to the query command"; and C9:L34-51, wherein this reads over "[t]he query message may request, for example, information about software . . . or about files in the memory of a given target device. For example, target device 114 may send out a query data message to target devices 112, 116, 118 . . . [for] a particular file"}.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MULTER by combining it with the invention disclosed by BECKER. The results of this combination would lead to a metadirectory system wherein the join engine peer may generate and broadcast queries for data of specific data types.

One of ordinary skill in the art would have been motivated to do this modification such that the join engine peer may broadcast queries for specific data types to multiple adapter peers in the peer-to-peer environment.

23. **As per dependent claim 3**, MULTER, in combination with BECKER, discloses:

A system as described in claim 2 wherein adapter peers respond to the queries by broadcasting data over one or more communication channels dedicated to responding to the queries of the first join engine peer {See BECKER, C9:L64-66, wherein this reads over "[t]he peer-to-peer protocol may allow any one of target devices to broadcast or receive data

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messages"; and C12:L16-23, wherein this reads over "target device may perform client functions such as sending out queries, including ping queries and receiving responses, including pong responses"}.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MULTER by combining it with the invention disclosed by BECKER. The results of this combination would lead to a metadirectory system wherein the adapter peers would respond to the queries of the join engine peer by similarly broadcasting the response over the communication channel(s).

One of ordinary skill in the art would have been motivated to do this modification such that the adapter peers may provide a response to the queries of the join engine peer, such that the response would be used to synchronize and consolidate information in the distributed Enterprise Information System.

24. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over MULTER, in view of BECKER, and in further view of Applicant Admitted Prior Art (hereinafter referred to as AAPA).

25. **As per dependent claim 4**, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the join engine peer generate the query in response to a data change received from an adapter peer such that the join engine may receive further data which may need to be synchronized and consolidated accordingly.

26. **Claims 37 and 38** are rejected under 35 U.S.C. 103(a) as being unpatentable over MULTER, in view of AAPA.

27. **As per dependent claims 37 and 38**, it would have been obvious to one of ordinary skill in the art at the time the invention was made to partition the join engine peers into multiple join engine peers such that each join engine peer may be dedicated to providing information about a specific data type or from a specific data source. Furthermore, wherein the join engine peer is a software process, it would have been obvious to one of ordinary skill in the art to have a software process comprised of multiple methods wherein each method would singularly be dedicated to a specific data type.

Response to Arguments

28. Applicant's arguments filed 2 March 2007 have been fully considered but they are not persuasive.

a. Rejections under 35 U.S.C. 102

Applicant asserts the argument that "Multer is completely silent regarding the absolutely required infrastructure for sharing information between numerous peers without the use of a centralized server." The Examiner respectfully disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an infrastructure not including a centralized server and a peer-to-peer system) are not recited in the rejected claim(s). That is, Applicant only recites that the peers communicate in a "peer-to-peer" fashion. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, while Applicant submits a copy of Todd Sundsted, *The practice of peer-to-peer computing: Introduction and history* (2001), it is noted that unless Applicant should incorporate said disclosure by Sundsted into Applicant's disclosure and further proceed to specifically define a peer-to-peer system, said disclosure does not carry any patentable weight. Furthermore, it is noted that one of ordinary skill in the art would have knowledge of the fact that many peer-to-peer networks may be of a hybrid nature (e.g. Kazaa and Bittorrent) in that while the peers are responsible for hosting available resources, a central server maintains and server information on the data stored at the peers and routes requests for said data to the appropriate peer servers.

Additionally, Applicant asserts that "Figure 1 is insufficient to disclose peer-to-peer communication" and "does not depict many of the necessary requirements for a peer-to-peer system" (See Amendment, page 11). The Examiner notes that one of ordinary skill in the art would be able to perceive that Figure 1 is peer-to-peer in nature wherein Figure 1 discloses two systems interconnected by a single communication line. Furthermore, one of ordinary skill in the art would have been able to further comprehend that the relevant portion of Multer's disclosure

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which pertains to Figure 1, indeed does disclose that the two systems "are coupled by a communication line . . . which allows data to pass between the systems" {See Multer, C5:L63-C6:L8}. Accordingly, it is noted that Multer is not entirely silent, but in fact does disclose the "sharing information between numerous peers without the use of a centralized server.

Lastly, Applicant notes that Multer "is completely silent with respect to channels associated with particular data types" (See Amendment, page 11). It is noted that it would be inherent to the claimed invention that each communication channel be associated with a particular data type since each of the communication channels is used "for broadcasting the data of defined data types." That is, since the invention as claimed restricts the communication channel to broadcasting data of defined data type generated by the join engine peer, it would necessarily flow from said restriction that the channels are associated with the particular data type.

For the reasons stated above, the claims rejections under 35 U.S.C. 102 are sustained.

b. Rejections under 35 U.S.C. 103

As per claims 2-3, the Applicant simply asserts that since Multer and Becker "fail to teach or suggest all the claim limitations of amended independent claim 1" (See Amendment, page 12). Because Applicant has not asserted any specific prior art arguments in response to the rejections of claims 2-3, the rejections of claims 2-3 are sustained. Furthermore, by virtue of dependency, the rejections of Claims 2-3 are sustained for the reasons stated above in relation to Claim 1.

As per claims 4 and 37-38, Applicant asserts that "the Examiner is relying on personal knowledge in taking Official Notice" and further requests that "the Examiner provide an affidavit of personal knowledge, pursuant to 37 C.F.R. 1.104(d)(2)" (See Amendment, page 12). The Examiner respectfully disagrees in that the Examiner notes that the features claimed are well-known within the art. Because Applicant has inadequately traversed the Official Notice and is therefore deficient, no document evidence shall be provided by the Examiner. The Applicant is directed to MPEP 2144.03, which address the topic of Official Notice and clearly state the criteria

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for traversing an Official Notice. MPEP 2144.03, Part C states the following in part:

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.111(b). See also Chevenard, 139 F.2d at 713, 60 USPQ at 241 ("[I]n the absence of any demand by appellant for the examiner to produce authority for his statement, we will not consider this contention."). A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. (emphasis added)

If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. (emphasis added).

Additionally, for purposes of clarification, the Examiner notes that it would have been obvious to one of ordinary skill in the art that a join engine peer may be partitioned into multiple join engine peers such that each of the partitioned join engine peers may be used in providing information about a specific data type or from a specific data source. Furthermore, wherein the join engine peers are each software processes, as claimed in claim 6, it would have been further obvious to one of ordinary skill in the art that said software processes may be coded and designed to reflect the a system wherein join engine peers are partitioned accordingly.

Accordingly, because of Applicant's deficient traversal, it is noted that the rejections of claims 4 and 37-38 have been modified to indicate that the limitations of the claim, which are well-known in the art, are to be taken as admitted prior art.

For the reasons stated above, the rejections of claims 4 and 37-38 are sustained under 35 U.S.C. 103.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

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shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

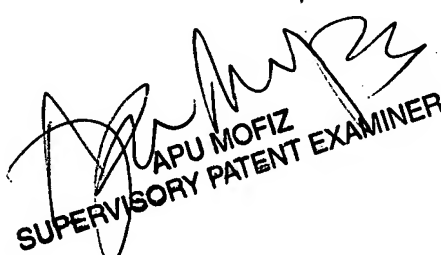
30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is (571) 272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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31.


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SUPERVISORY PATENT EXAMINER